REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-19 UNDER 35 U.S.C § 103

The Examiner rejected claims 1-19 in the Office Action under 35 U.S.C. §103 as being unpatentable over Bradley, et al. (U.S. Patent No. 7,082,463, issued July 25, 2006, herein referred to as "Bradley") in view of Basturk (U.S. Patent No. 7,111,074, issued on September 19, 2006, hereinafter referred to as "Basturk") and Huang, et al. (U.S. Patent No. 7,149,917, issued on December 12, 2006, hereinafter referred to as "Huang"). The Applicants note that the Examiner failed to include Huang in the heading, but included Huang in the detailed rejection. Under such assumption, the Applicants respectfully traverse the rejection.

Bradley teaches time-based monitoring of service level agreements. Bradley teaches monitoring service level agreements. The network provides time ranges for one or more tests to be performed to allow a customer to determine if they are being provided services in accordance with their SLA. (See Bradley, Abstract; col. 2, l. 60 - col 3, l. 5).

Basturk teaches a control method for data path load-balancing on a data packet network. The control system is used for controlling data flow over a data-packet-network according to specific destinations. (See Basturk, Abstract).

Huang teaches a method and apparatus for outage measurement. An Outage Management System (OMS) monitors and measures outage data at a network processing device that is used to derive outage information. (See Huang, Abstract).

The Examiner's attention is directed to the fact that Bradley, Basturk and Huang, alone or in any permissible combination, fails to teach or suggest a system, method or server for making quality measurements in a network

comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a total number of degradations for each one of said plurality of routers in said network over a period of time, as positively claimed by the Applicants. Specifically, Applicants' independent claims 1, 8 and 12 positively recite:

> 1. A system for making quality measurements in a network, the system comprising:
> a plurality of routers for routing traffic through the network;
> means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers from said plurality of routers; and
> means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. (Emphasis added).
>
> 8. A method of making quality measurements in a network, the method comprising:
> monitoring an R-Factor for each path of all paths within said network, wherein said each path is between a pair of routers;
> tracking at least one path that exhibits said R-Factor below a target value;
> tracking a start time indicating when the R-Factor of a particular path of said at least one path falls below the target value;
> tracking an end time indicating when the R-Factor of the particular path rises above the target value;
> determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router;
> charging the particular router connected to the multiple paths with one degradation if the overlap exists;
> charging the particular router with each degradation connected to the multiple paths if the overlap does not exist; and
> tracking a number of degradations for each router of all routers in said network over a period of time. (Emphasis added).
>
> 12. A server for making quality measurements in a network, the server comprising:

> means for taking measurements on each path of all paths within said network, wherein said each path is between a pair of routers from a plurality of routers; and
>
> means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of all of said plurality or routers in said network over a period of time. (Emphasis added).

In one embodiment, the Applicants teach a system, method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. For example, the Applicants' disclosure translates measurements of the performance of a path between routers into measurements of the performance of the routers. (See e.g., Applicants' specification, p. 6, ll. 7-15). The performance of paths between designated sites may be monitored over a period of time and tracked via a matrix. (See e.g., Applicants' specification, p. 6, ll. 12-15, p. 8, ll. 15-21 and FIG. 4).

The Applicants note the Examiner's response with respect to alleged "intended use" language in the claims. However, the Applicants note that the concept asserted by the Examiner is not applicable to the method claim. With respect to the method claims, the Examiner is required to provide references that teach or suggest each step of the method, for example, claims 8-11. With respect to the system and server claims, the concept asserted by the Examiner also does not apply because the references fail to teach or suggest a structure that is capable of performing the limitations recited in the system and server claims, as previously argued.

Accordingly, the alleged combination (as taught by Bradley) fails to render obvious the Applicants' claims because the alleged combination fails to teach or suggest a system, method or server for making quality measurements in a

network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Notably, Bradley only allows a customer to establish parameters for ensuring that SLA agreements are being met. (See Bradley, col. 24, ll. 14-34). For example, Bradley teaches that a customer may specify which devices to monitor for performance of a path. (See Bradley, col. 33, l. 41 - col. 34, l. 50). Thus, Bradley teaches ensuring that SLAs are met from a customer perspective and not a means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers.

In addition, Bradley fails to teach or suggest means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. In other words, if path measurements fall below a target value, a degradation is charged to a particular router. The total number of degradations for each router in the network may be tracked over a period of time. The Applicants' disclosure allows a service provider to identify a particular router that may be the cause of service degradation or breaches of SLAs.

The Examiner cites various sections of Bradley that teach various information is stored. However, none of the sections of Bradley cited by the Examiner teach or suggest means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Rather, at best Bradley teaches collecting various information on a subset of user selected devices. (See Bradley, col. 8, ll. 48-52, col. 27, l. 64 – col. 28, l. 2, col. 31, l. 24 – col. 34, l. 50). In other words, Bradley assumes that

the user knows which devices are the cause of the SLA breach or is silent as to how a user may determine which devices to select for monitoring.

As noted above, Bradley only teaches that devices specified by a user are monitored and that monitoring is performed from a customer's perspective. In contrast, the Applicants' disclosure teaches tracking the total number of times or instances of charged degradations for each router in the network over a period of time. For example, the Applicants' disclosure ensures that SLAs are met from a service provider's perspective. Thus, tracking the degradations of each router over time allows a service provider to determine which routers are underperforming based upon how many times a particular router was charged a degradation over a period of time. Nowhere does Bradley correlate any information about a path to a particular router, nor does Bradley teach or suggest anywhere that a count of degradations is tracked over a period of time for each router of all routers in the network.

Furthermore, Basturk fails to bridge the substantial gap left by Bradley. Basturk only teaches measuring a cost of each path between routers. (See Basturk, col. 5, ll. 36-65). Basturk provides costs variables to specific routers to calculate a cost of a particular path. (See Basturk, generally throughout, col. 6, ll. 5-67). In stark contrast, the Applicants' disclosure measures path data between routers to identify a particular router associated with the path when the data measurements of the path fall below a threshold.

The Examiner also concedes that Bradley and Basturk fail to teach or suggest means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers. (See Office Action, p. 4, ll. 11-12). However, the Examiner asserts that Huang bridges the substantial gap left by Bradley and Basturk. The Applicants respectfully disagree.

Huang fails to bridge the substantial gap left by Bradley and Basturk because Huang also fails to teach or suggest a system, method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each

path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Notably, Huang teaches monitoring only a subset of links within the network. Specifically, Huang teaches monitoring network processing devices that constitute "a single point of failure". (See Huang, col. 2, ll. 59-67). Moreover, only links between a router and a customer equipment are monitored. (See *Id.* and generally throughout). In other words, Huang fails to teach or suggest that all paths within the network are monitored (e.g., the path between core router 16C and router 16A or router 16A and router 16B of FIG. 1).

In stark contrast, the Applicants' claims specify a means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers. In other words, measurements are collected for all paths within the network and not just devices that constitute "a single point of failure," as taught by Huang. Moreover, the Applicants' claims specify that the path is between a pair of routers, unlike Huang that define a path between a router and a customer equipment.

The Examiner further asserts Official Notice with respect to claim 9. The Applicants specifically challenge the Examiner's assertion of Official Notice. The Applicants submit that the claim 9 in combination with the novel aspects of claim 8 is not notoriously well known in the art. As discussed above, Bradley, Basturk and Huang fail to teach or suggest the limitations of claim 8. Thus, selecting a specific threshold value would not be obvious to one skilled in the art for a method that performs the novel steps recited in the limitations of method claim 8. As a result, the Applicants request the Examiner to provide at least one reference that teaches the limitations of dependent claim 9. Thus, the combination of Bradley, Basturk and Huang fails to render obvious the Applicants' independent claims 1, 8 and 12.

Furthermore, dependent claims 2-7, 9-11 and 13-19 depend from independent claims 1, 8 and 12, respectively, and recite additional limitations.

For the same reasons discussed above, these dependent claims are also not rendered obvious by the combination of Bradley, Basturk and Huang and are allowable. As such, the Applicants respectfully request the rejection be withdrawn.

CONCLUSION

Thus, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final office action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 x130 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,

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